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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/840,947	04/21/97	LIU	E 30454-21

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MMS1/1001 -

EXAMINER

LE, D

ART UNIT	PAPER NUMBER
	2816

DATE MAILED:

10/01/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No. <b>08/840,947</b>	Applicant(s) <b>LIU</b>
	Examiner <b>DINH LE</b>	Group Art Unit <b>2816</b>

Responsive to communication(s) filed on Aug 10, 1998

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

Claim(s) 1-19 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-19 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## **NON-FINAL REJECTION**

### ***Response to Applicant's Amendment***

The rejections under 35 U.S.C. 102 (b) and 103(a) over IBM Technical Disclosure Bulletin (Vol. 28, No. 9 February 1986, page 3981) are withdrawn in view of the arguments presented in the applicant's amendment.

The objection of the specification as failing to provide proper antecedent basis for the claimed subject matter is withdrawn since claim 11 was amended.

The drawings remain objected to in that all boxes in Figure 2 should be labeled as its functions. Also, the terminals (11, 13, 19) in Figure 1 and the terminals 21, 23, 41, 43, 49, etc. in Figure 2 are not labeled as their functions. Correction is required.

Claims 2-3, 5-10, 12-13 and 15 18 remain objected to in that "A circuit", "An IC" and "A method" at line 1 should be corrected as --The circuit--, -- The IC-- and --The method-- for proper support.

Claims 1-19 remains rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is not understood how the second circuit is designed to have equal noise to the first circuit or to produce noise only as recited in claims 1 and 4, how the "second circuit can be an inverse function of said first circuit" in claim 7. Clarification is required.

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Claims 1-19 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the recitation “first function” is vague and indefinite because it is not understood what the “function” is, where the “noise component” is from and how the first circuit can include the noise. How the second input can “set” to cause the second output to equal noise component of said first output. The same is true for claims 4 and 7.

In claims 3, 8 , 14 and 18, it is not understood what the “halving circuit” is and how the substractor can be the halving circuit.

In claim 4, the term “designed” is vague and indefinite because it is not understood how the second circuit can be designed.

In claim 11, it is not understood how the noise canceling circuit can process the outputs from the plurality of analog circuits. It is unclear how the recitations “digital circuit”, “analog circuits”, and “noise canceling circuit” are read on the preferred embodiment. Insofar as understood, no such means are seen in the drawings. Also, the description of the present invention is incomplete because the claim fails to provide an input/output.

In claim 10, “said operator” lacks antecedent basis and it is unclear what the “operator circuit” is.

In claim 14, it is unclear how the first output and second output can be read since no structure that performs the reading function. Also, what is the “null signal” at line 4? The same is true for claims 18-19.

In claims 17-18, “said added output” lacks antecedent basis.

The remaining claims are rendered indefinite due to the deficiencies of claims 1, 4, 7 and 14 as stated above.

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***New Ground of Rejection***

Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-19 are rejected under 35 USC 102 (b) as being anticipated by Iwami (US Pat. 5,546,458).

With regard to claim 1, the Iwami reference discloses in Figures 1-2 a noise canceller circuit comprising a first circuit (38, 38a, 38b), a second circuit (40, 40a, 40b) and a substractor (36). Claims 3-4, 6-8 and 10-19 are seen to read directly on the Iwami reference.

With regard to claims 2, 5 and 9 the digital circuit is anticipated by a control section (16).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dinh Le whose telephone number is (703) 305-3790. The examiner can normally be reached on Monday to Friday from 7:00 A.M. to 5:00 P.M..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (703) 308-4876. The fax phone number for this Group is (703) 308-7722.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [timothy.callahan@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



DINH LE

Examiner

September 17, 1998

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